

IN THE CLAIMS:

1. (Currently amended) A method for enabling a transmission control protocol (TCP) off-load, comprising the steps of:
during establishment of a TCP connection, exchanging at least one queue identification number between a first port and a second port of the TCP connection, wherein the at least one exchanged queue identification number is specified by one port of the first port and the second port for use by another port of the first port and the second port when sending subsequent data packets by the another port; and
inserting at least one queue identification number, as determined by the exchanging of the at least one queue identification number between the first port and the second port, in outbound data packets, wherein the first port of the TCP connection sends a data packet to the second port of the TCP connection and the second port of the TCP connection sends a data packet to the first port of the TCP connection.
2. (Original) The method as recited in claim 1, wherein the first port of the TCP connection is a sending port and the second port of the TCP connection is a receiving port.
3. (Currently amended) The method as recited in claim 1, further comprising:
employing a queue identification option between the first port and the second port to identify a TCP socket to be used by one port of the first port and the second port during subsequent data packet transmissions to another port of the first port and the second port.
4. (Currently amended) The method as recited in claim 1-3, wherein the TCP socket includes a software queue, a hardware queue, and a mixed software queue and hardware queue.

5. (Original) The method as recited in claim 3, wherein employing a queue identification option to identify the TCP socket is employed in at least one of a software and hardware implementation.
6. (Original) The method as recited in claim 3, wherein the queue identification option is employed to lookup the TCP socket.
7. (Currently amended) The method as recited in claim 6 3, wherein the queue identification option is ~~employed to lookup the TCP socket for an incoming packet in at least one of a software or a hardware implementation~~ sent as a part of a synchronization message to establish the TCP connection.
8. (Currently amended) A system for enabling a transmission control protocol (TCP) off-load, comprising:
- an exchange component, during establishment of a TCP connection, which exchanges at least ~~one~~ two queue identification ~~number~~ numbers between a first port and a second port of the TCP connection; and
 - an insertion component which inserts at least one of the exchanged queue identification ~~number~~ numbers in outbound data packets, wherein the first port of the TCP connection sends a data packet to the second port of the TCP connection and the second port of the TCP connection sends a data packet to the first port of the TCP connection.
9. (Original) The system as recited in claim 8, wherein the first port of the TCP connection is a sending port and the second port of the TCP connection is a receiving port.
10. (Currently amended) The system as recited in claim 8, further comprising:
- an identification component which employs a queue identification option between the first port and the second port to identify a TCP socket to be used by one port of the

first port and the second port during subsequent data packet transmissions to another port of the first port and the second port.

11. (Currently amended) The system as recited in claim 8 10, wherein the TCP socket includes a software queue, a hardware queue, and a mixed software queue and hardware queue.

12. (Original) The system as recited in claim 10, wherein employing a queue identification option to identify the TCP socket is employed in at least one of a software and hardware implementation.

13. (Original) The system as recited in claim 10, wherein the queue identification option is employed to lookup the TCP socket.

14. (Currently amended) The system as recited in claim ~~13~~ 10, wherein the queue identification option is ~~employed to lookup the TCP socket for an incoming packet in at least one of a software or a hardware implementation~~ sent as a part of a synchronization message to establish the TCP connection

15. (New) A method for communicating between ports of a network connection, comprising the steps of:

during establishment of the network connection, exchanging at least two queue identifications between a first port and a second port of the network connection, wherein a first queue identification of the at least two queue identifications is sent by the first port to the second port, and a second queue identification of the at least two queue identifications is sent by the second port to the first port; and

inserting the first queue identification in outbound data packets from the second port to the first port, and inserting the second queue identification in outbound data packets from the first port to the second port, wherein the first port of the network connection sends a data packet to the second port of the network connection as specified

by the second port, and the second port of the network connection sends a data packet to the first port of the network connection as specified by the first port.

16. (New) The method of Claim 15, wherein the first queue identification is sent as a part of a synchronization message to establish the network connection.

17. (New) The method of Claim 16, wherein the second queue identification is sent by the second port to the first port in a message acknowledging receipt of the synchronization message by the second port.

18. (New) The method of Claim 15, wherein the second queue identification is sent by the second port to the first port in a message accepting use of the first queue identification by the second port.

19. (New) A system for performing the steps recited in Claim 1.

20. (New) A system for performing the steps recited in Claim 15.